

Volume 8, Issue 1 Special  
SOLAR ECLIPSE NEWSLETTER

January 2003 Special  
TSE2002 December 04

# SOLAR ECLIPSE NEWSLETTER

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### The Solar Eclipse Mailing List

The Solar Eclipse Mailing List (SEML) is an electronic newsgroup dedicated to Solar Eclipses. Published by eclipse chaser Patrick Poitevin.

[solareclipsewebpages@btopenworld.com](mailto:solareclipsewebpages@btopenworld.com)

It is a forum for discussing anything and everything about eclipses.

Thanks to the voluntary efforts of Jan Van Gestel of Geel, Belgium, the Solar Eclipse Mailing List (listserv) has been in operation since 10 December 1997. This is the first mailing list devoted solely to topic of solar eclipses on the internet.

You can send an e-mail message to the list server [solareclipses@Aula.com](mailto:solareclipses@Aula.com), which will then forward your e-mail to all the subscribers on the list. Likewise, you'll receive e-mail messages that other subscribers send to the listserv. Only subscribers can send messages.

## The sole Newsletter dedicated to Solar Eclipses

Dear All,

Another total eclipse is gone! For many of us, it was successful. Some other have been fighting against the clouds and a few did not see the eclipse at all. We feel very sorry for those.

For those, who have seen the total eclipse, not matter where, Africa or Australia, it was fantastic. Another one we will never forget.

This Solar Eclipse Newsletter is only a small extract of what have been captured and reported about the eclipse. We are sure, there will be many other reports following. But please enjoy the accounts and the many pictures which have been send in.

In the meanwhile, we are getting ready for the next Totality Day on 8 February 2003 in



**We can see the giant Baobab. But  
where is Joanne?**



**Another crossing of the Capricorn.**

the Open University of Milton Keynes. Beside this conference, 2003 is giving us some more events. We have the Transit of Mercury and the Annular Solar Eclipse in May and we have the Total Solar Eclipse in November. We are looking forward to meet you somewhere and maybe we might welcome your accounts and pictures.

Please enjoy this giant Special Edition of the Solar Eclipse Newsletter. And ... please keep those solar eclipse related messages coming ...

Best wishes for 2003!!!

Joanne and Patrick

Laura and Michael

## TSE2002

### Web casts

From: ROSANNE To: SOLARECLIPSES@AULA.COM Date: Wed, 04 Dec 2002 09:28:03

Evan et. al Likewise. Africa appears to be a bust based on satellite imagery. Possibly also Australia. I just looked at a polar image and it was not good.

I'm STILL trying to get into CSIRO and have for 4 hours on three separate connections including high speed.

I saw the crescent you mentioned. Apparently before C2. Not much to look at through those clouds however.

I hope I am very, very wrong about this . . . George Madden Rochester, NY

Evan Zucker wrote: I've been trying all night to connect to the live eclipse webcasts but with limited success. There were some frames of the clouds in Africa, some of which showed the crescent sun. I never got any image from Australia -- the servers seem to be overloaded.

From: Marc Weihrauch

Hello, on live-eclipse.org they did show a webcast from cloudless Chobe, Botswana; including totality. From Krueger Park, where some of our friends went, I saw mostly clouds. I have also received a message from Alexander Birkner (near Shingwedzi) that indeed they were clouded out.

During the last minutes I tried to get some pictures from Australia - without success, too. Right now I'm playing around with some satellite images. Under the monster link of [http://www.nrlmry.navy.mil/sat-bin/display10?PHOT=yes&AREA=/global/western\\_pacific&PROD=vis&NAV=global&CGI=global.cgi&ARCHIVE=Prev&MOSAIC\\_SCALE=15&CURRENT=20021204.0831.gms-5.vis.x.fd.x.jpg&CGI=global.cgi](http://www.nrlmry.navy.mil/sat-bin/display10?PHOT=yes&AREA=/global/western_pacific&PROD=vis&NAV=global&CGI=global.cgi&ARCHIVE=Prev&MOSAIC_SCALE=15&CURRENT=20021204.0831.gms-5.vis.x.fd.x.jpg&CGI=global.cgi) I clearly see a darkening near Australia, especially in direct comparison to [http://www.nrlmry.navy.mil/sat-bin/display10?PHOT=yes&AREA=/global/western\\_pacific&PROD=vis&NAV=global&CGI=global.cgi&ARCHIVE=Prev&MOSAIC\\_SCALE=15&CURRENT=20021203.0831.gms-5.vis.x.fd.x.jpg&CGI=global.cgi](http://www.nrlmry.navy.mil/sat-bin/display10?PHOT=yes&AREA=/global/western_pacific&PROD=vis&NAV=global&CGI=global.cgi&ARCHIVE=Prev&MOSAIC_SCALE=15&CURRENT=20021203.0831.gms-5.vis.x.fd.x.jpg&CGI=global.cgi), an image taken at the same hour yesterday. However this darkening is further South than I'd expected it to be. I thought the darkening in the image should be centered around the umbral path... Best regards Marc

From: Jörg Gerdes

Hi to all, we've seen the CSIRO LIVE Webcast with DSL Highspeed. It was amazing. The weather was a little bit cloudy, but totality was excellent to see with some clouds near the eclipsed sun. A very pretty scenery. We've tried to connect for many hours with no problems. Later there was no chance to get on the CSIRO-Website, but our videostream was running and we had no problems at all.

Unfortunately we've booked a trip to Lyndhurst but can't be there of sickness. That's bad. A very dark day. To see the eclipse and You can't be there. We'll try it next time. Greetings, Jörg Gerdes, Torsten Damme

From: Ole Nielsen

Ceduna had success! I saw a live webcast (LIVE1 on Klipsi's TSE2002 web site) at work in the Netherlands (don't tell my boss!). Crappy sound but the images were quite good. Beautiful corona. Until about 5 minutes before totality some clouds obscuring the Sun so some places in the area may not have been lucky. Congratulations to everybody that saw it! Ole Nielsen The Netherlands

From: Mike Murphy

I too saw the crescent through clouds on John's web cam (the only one I could get to work) but I did see some coverage on television - BBC World. They had pictures from Africa on VT which they stopped just at second contact! Unbelievable really, although there was a lot of cloud. They did show a bit of what looked as if it might be the beach in Mozambique but the cloud cover

(Continued on page 3)

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looked pretty bad.

Later (at 0910) they did cover the event from Australia, live as far as I could tell from the time. This included totality and it looked pretty good; nice corona but I couldn't see any prominences. Breakfast now... - Mike in the UK 04.12.02

From: Abebe Kebede

The best one was the one that was coming from Chobe, Botswana. The one from Kruger National Park in South Africa was not as good. We got still images with it A

From: Robert B Slobins

I found John's web cam the best of the sites. I had severe problems with the other web cams and gave up on them--it was past 4 AM.

There were indeed virtually no prominences to view. I was following the EIT images on [www.spacew.com](http://www.spacew.com). My impression is that the best African views were from the northern part of Botswana/Zimbabwe, Messina, and inland Australia. Dr Pasachoff got lucky in Ceduna. Angola had to be out of the question.

There was a cold front or trough draped across the African part of the track, into the Indian Ocean. I wonder if the cruise ships out there found a hole in the overcast. I was surprised that cold fronts got that far north this time of year. --Robert B Slobins

### 2002 eclipse request from sad person unable to go

From: Sheridan Williams To: SOLARECLIPSES@AULA.COM Date: Wed, 04 Dec 2002 09:47:00

The only real live webcast I could find from Australia was from a group of Japanese in Ceduna. The coverage was good and when played simultaneously with a simulation from Starry Night Pro and the excellent live coverage from BBC News 24 there was a very good correlation.

According to one report it was cloudy in the Kruger National Park. What I want to know is:

1. Did anyone see this totality from the same location in Angola as the 2001 event?
2. Could I have reports from individuals as to where it was cloudy and where it was clear e.g.:

West Angola

East Angola

Namibia (Caprivi Strip)

Botswana

Zimbabwe

South Africa (Messina)

South Africa (Kruger)

West Mozambique

Coastal Mozambique

Sea locations

Ceduna - clear

Lyndhurst

Narylco

Finally, please let me have you eclipse timings to update my Eclipse Chasers' page: [www.clock-tower.com/tse](http://www.clock-tower.com/tse) If you wish to be added, email me (NOT the mailing list) at [chasers@clock-tower.com](mailto:chasers@clock-tower.com)

Please let me have the following details:

1. Your full name as you want it to appear
2. Month/Year of total eclipse

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3. Location (lat/long, or nearest place name) where you saw it
  4. Duration of totality at your chosen location
  5. Sky conditions during totality (estimate please) 1=completely clear sky, 2=high cirrus, 3=visible through medium cloud, 4=barely visible, 5=complete cloud cover
- Repeat lines 2 to 5 if you want other total eclipses added

I'm afraid that you must have travelled to more than two total solar eclipses, otherwise the table would become too long.

Finally I have web pages for the 2003 annular eclipse (and the 2005 annular in the Spain, Portugal, Ibiza, Algeria, Tunisia areas). If anyone wants me to add further info please let me know on: [eclipse2003@clock-tower.com](mailto:eclipse2003@clock-tower.com) or [eclipse2005@clock-tower.com](mailto:eclipse2005@clock-tower.com). Best wishes Sheridan Williams

From: T. Grant Leffingwell

I have also had problems with the web-casts.

U.S. National Public Radio cut to BBC for a correspondent's live account of totality from Messina. Apparently, the skies were very good there. The correspondent reported that "when the eclipse tourists in Kruger Park woke up this morning to total overcast, many jumped in their cars and drove as fast as they could in this direction."

Disappointed at having to miss another one... --Grant Leffingwell Columbus, Ohio, USA

From: ROSANNE

This sounds just like Fred Espenak. I believe he was in Kruger not too far from Messina and, as in Turkey, he would have had a backup plan. I only hope they were able to pull it off in time if this is, in fact, the case. George Madden Rochester New York

### Eclipse success

From: Jay.M.Pasachoff@williams.edu Cc: [solareclipses@aula.com](mailto:solareclipses@aula.com) Date: Wed, 04 Dec 2002 10:23:44

totality + 1 hour, Dec 4

We can report, on behalf of the Williams College expedition to Ceduna, a fantastic view of the eclipse as the sun moved into a huge hole in the clouds in the late afternoon. Though most of the preceding week had been clear, eclipse day was mostly cloudy, and only the Panglossian held out much hope of seeing the totality. But virtue triumphed and the eclipse showed in all its glory.

Two hours before the eclipse, when it was totally cloudy in Ceduna, a rump group of 8 went 35 km inland to Maltee, since reports had the sky being clearer there. Only ordinary cameras and none of the scientific equipment went there. In the event, clouds obscured totality from that site.

"We are very happy with our success," reported Prof. Jay M. Pasachoff, professor of astronomy at Williams College, "especially since it followed so many months of preparation and hard work on behalf of our students and colleagues."

Drs. Bryce Babcock and Steven Souza of Williams College joined Pasachoff in supervising the experiments on the expedition. Dr. Paul Rosenthal and Lee Hawkins were among the staff. Alumnus Rob Wittenmyer joined 11 current undergraduates for their two-week expedition to the south coast of Australia. Other staff included Ray Smartt of the U.S. National Solar Observatory and Robert Lucas of the University of Sydney.

The students included seniors David Ticehurst and Kristen Shapiro; juniors Sarah Croft, Jesse Dill, Davy Stevenson, Paul Crittenden, Lissa Ong, and Galen Thorp; and sophomores John BackusMayes, Kamen Kozarev, and Terry-Ann Suer.

From: Michael Gill

## TSE2002

Perfect clear, cloudless skies here at Lindon Station, South Australia (140 degrees 53 minutes east, 29 degrees 07 minutes south).

Lots of pictures and video taken. Duration was 26.6 seconds at an elevation of 1.5 degrees above the horizon. Green flash cusp seen at sunset! More later.

Bengt Alfredsson  
Joe Cali  
Jay Friedland  
Michael Gill  
Joel Moskowitz  
Glenn Schneider  
Craig Small

### Another satellite image

From: Marc Weihrauch To: SOLARECLIPSES@aula.com Date: Wed, 04 Dec 2002 11:40:32

Dear friends, here's another satellite image clearly showing the lunar shadow near Australia: [http://www.sat.dundee.ac.uk/pdus/JV/200212040900JV1\\_g.jpg](http://www.sat.dundee.ac.uk/pdus/JV/200212040900JV1_g.jpg) (compare to [http://www.sat.dundee.ac.uk/pdus/JV/200212020900JV1\\_g.jpg](http://www.sat.dundee.ac.uk/pdus/JV/200212020900JV1_g.jpg) which shows the same region at the same hour two days before the eclipse). Thanks to Klipsi, who included a link to that site on his own website! Marc

### Bill Nye the Science Guy

From: Robert B Slobins To: "SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@aula.com> Date: Wed, 04 Dec

CNN just ran a segment on today's eclipse. Nye reported that he had sudden clearing at his site in South Africa. The video showed no totality through the clouds.

The Australian video showed totality. However, the muppet who operated the video had totality out of focus.

You may be able to catch the CNN story later today. cheers/Robert B Slobins

### Eclipse in Africa

From: Onderbeke Julien To: solareclipses@Aula.com Date: Wed, 04 Dec 2002 19:56:59

Dear Mr. Willams et. al, Last August I traveled in Namibia and went through the Caprivi to Zimbabwe. Our tourleader told us he should made a special eclipse-tour in December. I'm quite sure he was in the Caprivi today, to observe the eclipse, because we took a meal at the place where he should observe with his group. There are a few Belgian tourists traveling with him on this moment.

This morning I saw (here in Flanders, Belgium) the 35 seconds of totality in Ceduna, Australia, on BBC-World. Some minutes earlier, CNN showed the partial eclipsed sun, slightly covered by some clouds. The moment of totality could not be seen, they just continued their program. Julien Onderbeke

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### Australia 2002 first photos

From: fred%moonglow.net@mail1.abac.com To: SOLARECLIPSES@AULA.COM Date: Thu, 05 Dec 2002 00:40:54

Hello all, The Astronomical Tours group (that included myself, Klipsi, and Ray Brooks among others) had a very successful eclipse on the Stuart Highway in Australia. Perfectly clear skies, and a wonderful eclipse. I've posted some early pictures and comments here: <http://www.moonglow.net/eclipse/2002dec04/index.html>

I probably won't be able to respond to any emails for several days. Fred Bruenjes <http://www.bruenjes.org>



Eclipse mosaic made by Fred Bruenjes (not with TSE2002 images)



## TSE2002

### Sky & Telescope report

From: Evan Zucker To: SOLARECLIPSES@AULA.COM Date: Thu, 05 Dec 2002 02:27:43

Sky & Telescope has posted a report about observations from Australia and Africa:

Darkness Falls Upon Dark Continent, Outback [http://skyandtelescope.com/news/current/article\\_804\\_1.asp](http://skyandtelescope.com/news/current/article_804_1.asp) -- EVAN

### December 04, 2002 - (date of web publication) SOLAR ECLIPSE 2002

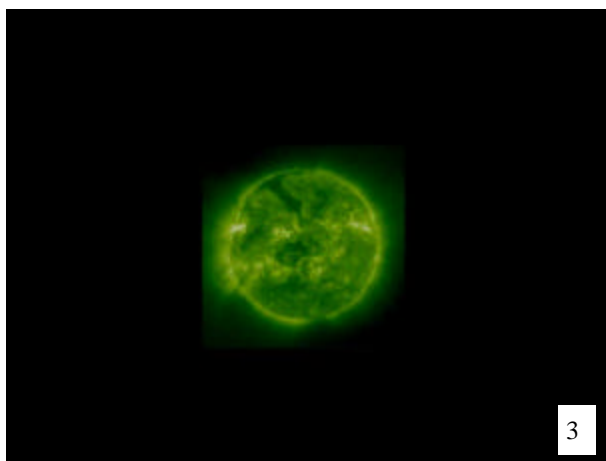
Today people in Australia received a rare 32-second celestial show as the Moon completely obscured the Sun creating a ring of light.

Solar eclipses provide experts an opportunity to study the Sun's outer atmosphere called the corona. While people in Australia were observing the solar eclipse, the (Solar and Heliospheric Observatory (SOHO) spacecraft also had its eye on the Sun. SOHO is equipped with special instruments that allow it to create a continuous artificial eclipse. From the unique vantage point in space, scientists have been able to monitor the explosions on the Sun that can impact us here on Earth. The total eclipse was the first to cover Australian shores since 1976. The next is not predicted for several more decades.



From: Jay.M.Pasachoff@williams.edu

The site for the Williams College Eclipse Expedition to Ceduna is [www.williams.edu/astronomy/eclipse](http://www.williams.edu/astronomy/eclipse)



The Williams College Eclipse/NASA SOHO image is at <http://www.gsfc.nasa.gov/topstory/2002/1204eclipse.html>

Caption for Image 1: Solar Eclipse as seen from Australia, December 04, 2002. Courtesy Jay Pasachoff and the Williams College Eclipse Expedition

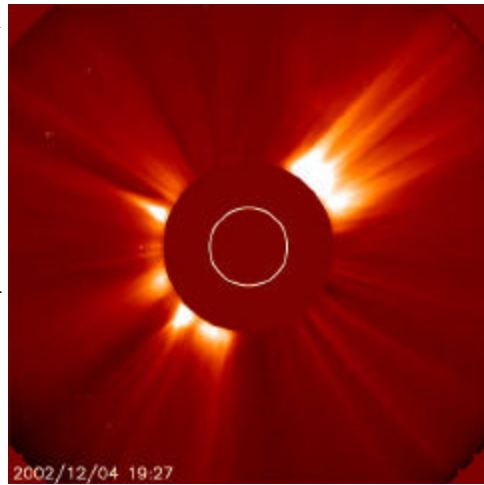
Caption for Image 2: The Solar Eclipse image was combined with an image taken by the EIT (Extreme Ultraviolet Imaging Telescope) instrument onboard the SOHO (Solar and Heliospheric Observatory) spacecraft. SOHO Image Courtesy: NASA/ESA

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Caption for Image 3: This image shows activity on the surface of the Sun on December 4, 2002. The image was taken by the EIT (Extreme Ultraviolet Imaging Telescope) instrument onboard the SOHO (Solar and Heliospheric Observatory) spacecraft. Courtesy: NASA/ESA

Caption for Image 4: The SOHO (Solar and Heliospheric Observatory) spacecraft uses special cameras to generate a continuous "eclipse view" of the Sun. This "manufactured" eclipse enables scientists to study the Sun's corona without waiting for an eclipse. These images were taken using the LASCO (Large-Angle and Spectrometric Chronograph) instrument on the SOHO spacecraft. The small disk represents the Sun. Courtesy: NASA/ESA



### Perfection in Lyndhurst, South Australia

From: imoon@interlog.com To: SOLARE-CLIPSES@AULA.COM Date: Thu, 05 Dec

>From our vantage point at the airstrip in Lyndhurst in the Australian Outback we observed a perfect event with clear skies from morning to partially-eclipsed sunset. Numerous small aircraft were in the air during totality and moments after third contact two skydivers landed on the ground! Nearby, the thousands of ravers, dancers, artists and musicians packed into the Eclipse Outback Festival were actually silent for a few moments! The incessant, pulsating beats of trance music had filled the air 24-hours a day prior to the eclipse. In all my years of chasing eclipses I have never seen such an elaborate and colorful eclipse celebration. It was truly wild.

Perfection is a difficult standard to live up to. This eclipse delivered.

Photos and video will be posted on <http://www.eclipseguy.com> upon my arrival back in Canada!

Congratulations to all who observed totality!  
David Makepeace Toronto, Canada



### I'd like to spend some time in Mozambique

From: wasil@belgacom.net To: SOLARE-CLIPSES@AULA.COM Date: Thu, 05 Dec

I reached the grassy airstrip of Chibuto village, southern Mozambique, together with Robert, Peace Corps volunteer, shortly before 8 AM local (UT plus 2 hrs). Nice view as most of the vegetation had been cleared. This part of the country was heavily effected by the floods in early 2000, as the Limpopo river bursted its banks (some might remember the story of a woman of Chibuto giving birth to her baby in a tree, where she was hiding for the flood waters). Earlier that morning the cloud cover looked pretty bad, as we left from Xai-Xai to the crossroads at Chongoene village. My initial aim was to reach the center line some 15 kms further up the EN1 highway, but the skies looked much better inland, to the northwest, so we both jumped on a minibus for the 40 or so kilometers up to Chibuto village. The sun was in a large opening in the cloud cover, some 20 minutes before totality, but then things started to get worse as the hole drifted away to the north, out ! of reach. Then again most of the cloud was semi-transparent, and the black disk of the moon and a small portion of the corona (opposite the disintegrating crescent of sunlight) showed well some 20 seconds before second contact (totality began at 08h 26.5m local). Wow! Archetypical black disk in the



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sky, subdued corona, and heavy darkness. Using my 24x70mm Televue, I could not recognize any overall pattern of the corona, as only the inner portion showed well. Halfway through totality, the transparency of the cloud diminished even more, only a black disk and several beautiful prominences. I even had time to take a glance at the yellow sunset colours on the northerly horizon, and also made a futile attempt to look for Venus, above. Half an hour later, as I was educating Robert on the Saros cycle of eclipses (courtesy Fred's 2002 December 04 bulletin) I had to grasp for the telescope, as one of two small cargo aircraft left the airstrip, some 15 meters above our heads. Wasyl Moszowski, Maputo Cyber Cafe.

### But what about the dog?

From: Maxine & Michael To: SOLARECLIPSES@AULA.COM Date: Fri, 06 Dec 2002 08:35:52

At 05:23 AM 12/4/02 -0500, Jay Pasachoff wrote: totality + 1 hour, Dec 4 We can report, on behalf of the Williams College expedition to Ceduna, a fantastic view of the eclipse as the sun moved into a huge hole in the clouds in the late afternoon. Though most of the preceding week had been clear, eclipse day was mostly cloudy, and only the Panglossian held out much hope of seeing the totality. But virtue triumphed and the eclipse showed in all its glory.

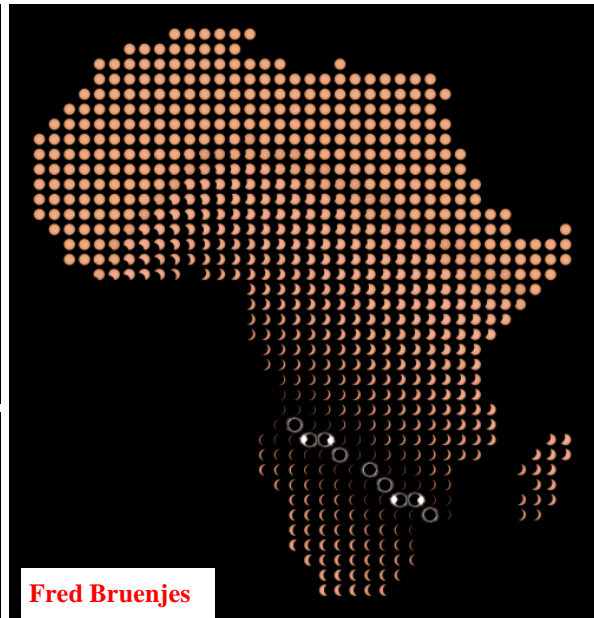
>Two hours before the eclipse, when it was totally cloudy in Ceduna, a rump group of 8 went 35 km inland to Maltee, since reports had the sky being clearer there. Only ordinary cameras and none of the scientific equipment went there. In the event, clouds obscured totality from that site.

>"We are very happy with our success," reported Prof. Jay M. Pasachoff, professor of astronomy at Williams College, "especially since it followed so many months of preparation and hard work on behalf of our students and colleagues.".....

We agree - it was wonderful at Roxby Downs too. But Jay, we want to know. How was the dog a man threw over the fence while you were being interviewed on TV? And did you tell him off more? The TV interview cut off as you were chasing him. Maxine Komlos

From: Jay.M.Pasachoff@williams.edu

I am happy to report that the dog was not injured, in spite of her being violently thrown. Channel 7 came back, in fact, the next day to film her romping with her owner, the boy Makenzi Harrison. Someone in Adelaide just brought me a tape of the TV coverage but I haven't seen it yet. Their followup story showed the dog the next day. The man got away. Spot is probably now the most famous dog in Australia. Jay



Fred Bruenjes

### Eclipse photos

From: Mike Simmons To: solareclipses@Aula.com Date: Wed, 04 Dec 2002 16:47:35

The following story has a link to a slide show with images from Africa and Australia:

[http://story.news.yahoo.com/news?tmpl=story&ncid=624&e=2&cid=624&u=/ap/20021204/ap\\_on\\_sc/solar\\_eclipse](http://story.news.yahoo.com/news?tmpl=story&ncid=624&e=2&cid=624&u=/ap/20021204/ap_on_sc/solar_eclipse)

Mike Simmons

From: F.Podmore

Mike, Thanks for teh link, but trying to access it to-day failed.

Is it archived at another address? I want to see what other people saw.

[I did a search using 'eclipse' and got 661 hits! Which one is the right one??] Thanks, Francis

From: Mike Simmons

Francis, I just tried it and it worked for me. Are you sure you had the whole URL? It could have wrapped around and you got just the first part of it. Mike Simmons

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### Eclipse from Zimbabwe

From: F.Podmore To: Solar Eclipses Mailing List  
<solareclipses@aula.com> Date: Fri, 06 Dec 2002 14:36:07

Have a look at <http://antwrp.gsfc.nasa.gov/apod/ap021206.html>

The photographer, Murray Alexander comments:

Note from Z\_S: He posted my rough pic - I had galloping gut-rut so was unable to think yesterday. Bit better now.

If you have never looked at this site, it is tops. And <http://antwrp.gsfc.nasa.gov/apod/ap021203.html> is a beautiful composite by Fred of TSE2001 from Zambia.

### Eclipse/space image

From: Jay.M.Pasachoff@williams.edu To: solareclipses@aula.com Date: Fri, 06 Dec 2002 15:15:41

A composite of our Williams College Expedition eclipse image from Ceduna with the NASA SOHO image in 11-times-ionized iron is posted at

<http://www.gsfc.nasa.gov/topstory/2002/1204eclipse.html>

The posting was delayed by snow in Washington, D.C. They interchanged images 2 and 3, but that may be corrected by the time you see this message.

Note that our image is very preliminarily processed, and lots more detail will show when we work on it. It was taken with an Apogee 1024x1024 CCD and a purpose-built telescope to match the defunct C1 coronagraph of the LASCO experiment on SOHO. Jay Pasachoff

### Wrong URL for DHS website

From: Fraser Farrell Cc: SOLARECLIPSES@AULA.COM Date: Fri, 06 Dec 2002 17:26:32

On Tue, 3 Dec 2002 18:09, Sowerby, Sandra (DHS) wrote: Hi Webmaster You appear to have the wrong URL for the Department of Human Services Eclipse information The correct address is: <http://www.dhs.sa.gov.au/pehs/Alerts-&-Recalls/eclipse-eye-protection-11jul02.htm> Could you please correct it? Thanks Sandra

>

> SANDRA SOWERBY BA Web development & desktop publishing Environmental Health Branch Department of Human Services ~ Government of South Australia Tel: (08) 8271-6940 ~ Fax: (08) 8357-2904 2/6 Avenue Street, Millswood SA 5034

Sandra, The URL you quoted above returned a 404 error here. The URL I have linked to on my eclipse website is still working as of 3:30am (local time) on Saturday December 7.

I am disappointed to note that although your webpage claims to have been updated on December 4, it STILL does not include the fact that it is safe to look at a totally eclipsed sun. It is safe then, because the sun is totally covered by a ball of rock the size of Australia, and you are in its shadow.

Your own Prof Buckett eventually conceded this point a week before the eclipse, during a live interview on ABC radio.

It would also appear from your webpage that Dr McGovern still does not understand elementary optics. Specifically, that when you are standing in the shadow of something large and opaque, you can quite safely look towards the sun's location without fear of eye damage. I am surprised that an ophthalmologist does not know this fact. My children knew it before they began kindergarten.

If for some reason Dr McGovern does not think this fact also applies to astronomical objects, then he can verify that it does during any night, when he will be in the shadow of the Earth itself.

As my children would say; "Duh...." Fraser Farrell (several post-nominals omitted...)

## TSE2002

### Space Station Eclipse

From: F.Podmore Cc: Solar Eclipses Mailing List  
<solareclipses@aula.com> Date: Fri, 06 Dec 2002 09:28:18

Evan, Thanks for the news, but what did they see? Where are the pictures?? Francis.

On Mon, 2 Dec 2002, Evan Zucker wrote:

> I'm sure many of you subscribe to the NASA Science News e-mail list, but those of you who don't might enjoy this link:

>

> NASA Science News for December 2, 2002

>

> The crew of the International Space Station will enjoy a unique view of this week's total solar eclipse--looking down at the moon's shadow on the earth below.

>

> FULL STORY at > [http://science.nasa.gov/headlines/y2002/02dec\\_isseclipse.htm?list449573](http://science.nasa.gov/headlines/y2002/02dec_isseclipse.htm?list449573) -- EVAN

From: Evan Zucker

At 01:28 AM 12/6/2002, you wrote: Evan, Thanks for the news, but what did they see? Where are the pictures??

Here: Space Weather News for Dec. 6, 2002 <http://www.spaceweather.com>

THE ECLIPSE FROM ABOVE: International Space Station science officer Don Pettit looked out the window during the total solar eclipse of Dec. 4th and saw the Moon's shadow racing across the Indian Ocean--a unique view of the eclipse from above. He also took a picture of the event. See it for yourself on SpaceWeather.com.

The photo is at <http://science.nasa.gov/spaceweather/swpod/05dec02b/Pettit1.jpg>. The caption is:

The dark spot near the Earth's limb is the Moon's shadow, which at the time of the photo (approximately 0756 UT) was racing across the Indian Ocean. This is NASA image # ISS006-E-5065.

This is much more oblique and distant view of the umbra than we've seen in other eclipses.-- EVAN

### Where was clear and where was cloudy

From: Sheridan Williams To: SOLARECLIP-  
SES@AULA.COM Date: Thu, 05 Dec 2002 10:50:49

I am building up a small table showing who saw the 2002 eclipse and who didn't. It can be seen at: [www.clock-tower.com/eclipse](http://www.clock-tower.com/eclipse) If you have any results to add, please let me know on: [eclipse2002@clock-tower.com](mailto:eclipse2002@clock-tower.com) Best wishes Sheridan Williams

From: F.Podmore

Hello Sheridan, I've just got back from south-west Zimbabwe where we had a WONDERFUL eclipse in perfectly clear blue sky - I was very close to Mangwe pass and on the centre line. And the reports I've had are that PLUM-TREE and BEITBRIDGE were also cloud free. So the Sky&Tel article (as updated 5 DEc, which I've just read) saying that "most of southern Africa was cloudy) is simply not true.

But I cannot get into your website [www.clock-tower.com](http://www.clock-tower.com) - I get re-directed to <http://www.cloctower.demon.co.uk/eclipse> which I am told is NOT AVAILABLE - Error 404 (whatever that is)!! So I cannot see what reports you've already had from Zim.

Surely you could locate one of the satellite images for that morning and put it on your webpage, so we can see where the clouds were. Best regards, Francis

From: Nick Quinn

Francis et al, The Meteosat visible image for 06:00hrs can be found here: [http://www.nquinn.demon.co.uk/eclipse2002/2002120406\\_met\\_vis.jpg](http://www.nquinn.demon.co.uk/eclipse2002/2002120406_met_vis.jpg)

The Meteosat infra-red image for 06:00hrs can be found here: [http://www.nquinn.demon.co.uk/eclipse2002/2002120406\\_met\\_ir.jpg](http://www.nquinn.demon.co.uk/eclipse2002/2002120406_met_ir.jpg)

The GMS visible image for 09:00hrs can be found here: [http://www.nquinn.demon.co.uk/eclipse2002/2002120409\\_gms\\_vis.jpg](http://www.nquinn.demon.co.uk/eclipse2002/2002120409_gms_vis.jpg)

The shadow can be seen south-west of Western Australia on the GMS image. Regards, Nick Quinn.

From: Evan Zucker

Thanks for the links, Nick. To view these links you need to omit the > character at the end of each URL. -- EVAN

## TSE2002

## THE ECLIPSE OF TWO CHOICES

TOTAL SOLAR ECLIPSE - 4<sup>th</sup> December 2002Singelele Game Reserve: Coordinates: S 22° 21' 20"  
E 30° 03' 57"

An eclipse of two choices, basically because it was a choice between the two continents of, Africa and Australia. Where to go, that was the question? Due to the eclipse in Africa of 2001 people found it wasn't as bad as previously perceived, and the other camp thought, done that, been there. Our discussions based our choice on the eclipse duration, the height of the sun, and available time off work, so it had to be South Africa, despite the apparent dangers. The three days prior to the eclipse were wall to wall sunshine, we couldn't believe our luck, reports before that of more eager travellers reported cloud, and the predictions were never that good anyway.



The morning of the eclipse we were awoken by the wind, we knew that meant clouds, and by checking outside it confirmed the fears, it was completely overcast. The horizon over Kruger looked clear, and the question was whether to move or not? We were mobile with the 4x4 but the clouds were moving so fast it was a moveable feast.

We decided to stay put and take our chance, before first contact at 7.12 am, the clouds start to break up, slowly and clear patches start to open up, optimism is a wonderful human trait, people kept hopeful and happy, we lost the sun behind clouds twice between first and second contact for brief minutes, there was slight haze at times but it was not strong enough to obscure the sun. At twenty-five minutes before second contact the shadows are losing their definition. At eighteen minutes it's noticeably darker, and sixteen minutes before second contact we notice a halo around the sun, due to the haze. Ten minutes to go, crescents are everywhere but we don't see any shadow bands. Venus became visible with five minutes to go. Our hopes continue to be raised by the large hole in the sky to the east, but small thick fluffy clouds hang around menacingly.



The crescent is very small, and the eclipse colours are beautiful, as precious as the following diamond ring, still no shadow bands, this time the atmospheric conditions obviously not allowing this other jewel in the crown, so much prized by us mortals.

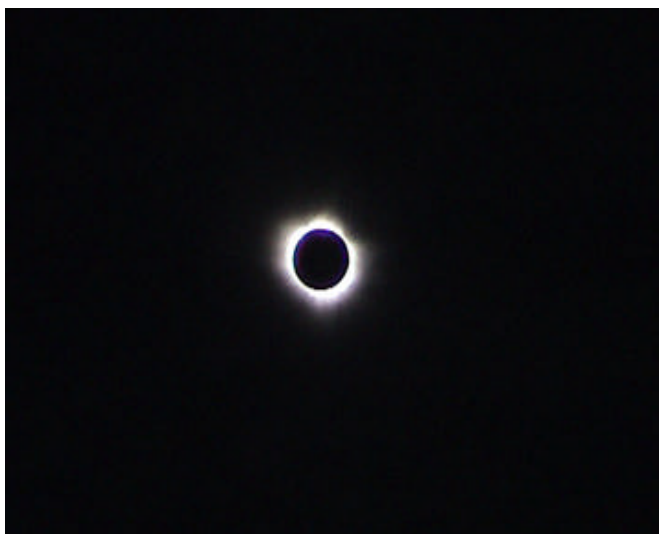
Bailey's beads drift into diamond ring, and the crowd exclaim 'wow', indeed 'wow', in the distance a monkey cry's can be heard, perhaps his interpretation. The prominences are beautiful and plentiful, all around the top arc of the sun from 11.00 to 1.00 o'clock, also down at 5.00 and 6.00 o'clock. The corona is very symmetrical and the streamers

*(Continued on page 13)*

## TSE2002

are strong and dark, first check the camera, then look in the telescope to view the detail, then I look up, and catch my breath. The sight is breathtaking and mesmerising, and then zoom the video out, crank up the exposure to ensure the full extent of the corona and then zoom back in again to finish on detail, then all too quickly the third contact diamond ring is back and the filters replaced.

Replaying the film told us we had exactly 1 minute and 14 seconds from diamond ring to diamond ring. Absolutely precious, everyone is walking on air; eclipses just do that to people, they lift your spirits higher than the sky itself. Perhaps even more so when the chances of seeing it are greatly reduced by inclement weather. **Joanne Poitevin**

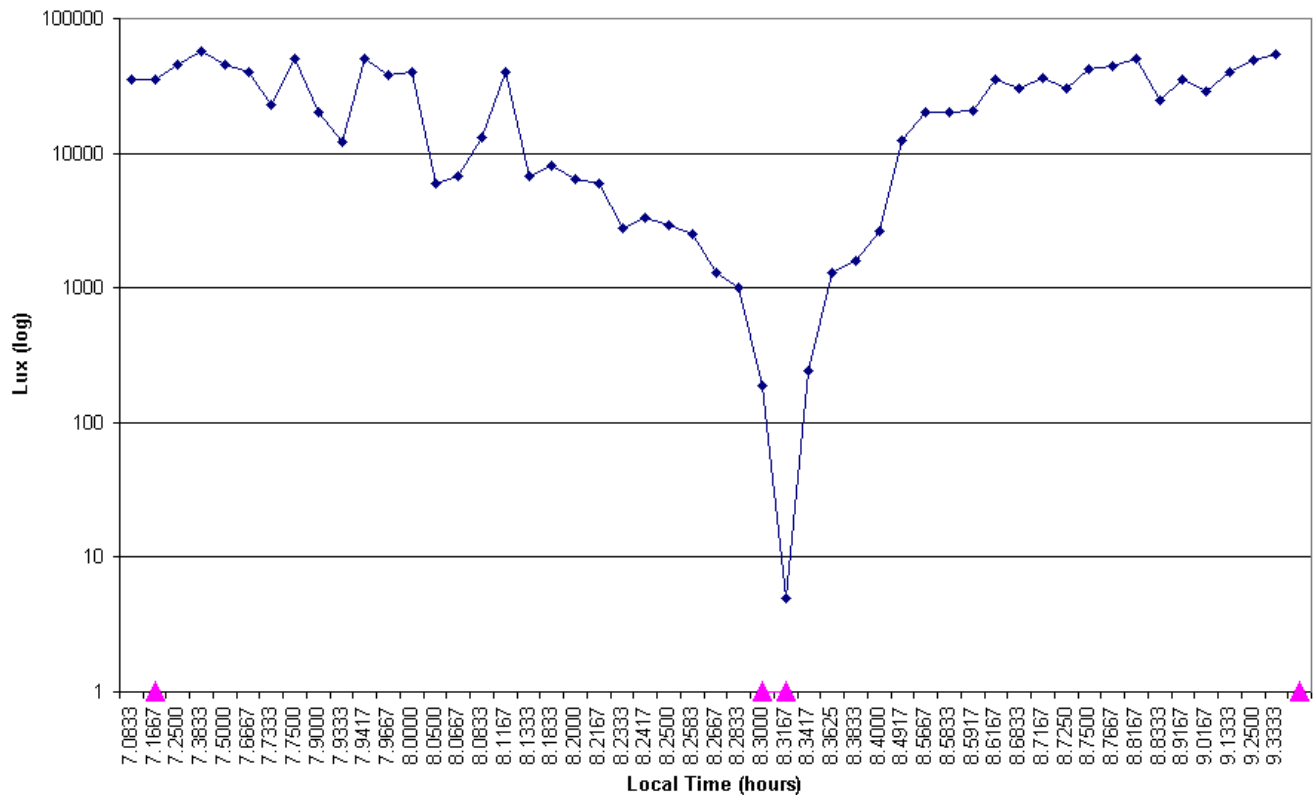


All pictures by Joanne Poitevin



## TSE2002

TSE 2002 12 04 - Singelele Camp, Mussina South Africa



Light curve by Patrick Poitevin

### Success at Singelele Camp, South Africa

From: solareclipsewebpages@btopenworld.com To: SOLARECLIPSES@AULA.COM Date: Sun, 08 Dec

Dear All, Just back from South Africa. Joanne and I observed the total solar eclipse with success from Singelele Camp, 7.46 km from Musina (in the direction of the center line). Beautiful prominences, detailed corona, Mercury, Venus, Monkey screams at second contact,... Wonderful. Detailed report will follow later and pictures will be posted on our Solareclipsewebpages.

Those tried to subscribe during our week absence, sorry, but you have been added to the SEML right now.

and ... keep those solar eclipse related messages coming...  
Best regards, Patrick and Joanne

Picture by PP





## TSE2002

### Eclipse report from Zimbabwe

From: Matthias Graner To: SOLARECLIPSES@AULA.COM  
Date: Sun, 08 Dec 2002 21:09:29

Dear all, I am just a reader of this list and didn't write anything so far. But now I want to send a brief report of our eclipse experience in Zimbabwe.

After flying to Johannesburg with a friend of mine, Bernd Hallenberg, we met fellow eclipse-chaser Matthew Poulton and drove in a rented 4WD north toward the Zimbabwean border on Dec 2. We were somewhat unsure about the political and economic situation in Zimbabwe, but people we met at the border assured us that it was quite safe to travel into Zimbabwe. I had booked a room at the Holiday Inn Express in Beitbridge early this year, and we did arrive at this place late in the evening. No problems at the border, because Zimbabwean officials seemed mainly interested in collecting money (visa fees, taxes etc.) from us.

Although the hotel was said to be full, Matthew, who hadn't booked before, also got a room there. The only major problem was a complete lack of water in the Beitbridge area and in the hotel. However, having read reports about a water shortage days before, we had brought bottled water from South Africa.

Tuesday, December 3, was a perfect day. The center line was somewhat north of Beitbridge, and we drove up the road to Bulawayo in search of a viewing site. We found a hill about 20 kms north of Beitbridge. On top of it was an antenna by some mobile phone company. We met Point, a guy from the area who introduced himself as the "guard" of the hill. From there we had a very good view towards the West, North and East. The rest of the day was spent with exploring the (quite uninteresting) city, where we met Ulrich Haasdyk from Canada. Clouds were visible in the South and Southwest, and we were somewhat concerned about the weather on the next day.

On eclipse day, the clouds were still visible towards the Southwest, and at 5:45 a.m. we left the hotel for our viewing site. Bernd managed to drive the car on a very rocky path up the hill (which I hadn't been able to do the day before). The weather was very good with a slight breeze, and I began to set up my small telescope and a video camera. Point was with us, later Ulrich arrived with a friend from Canada and some others who had stayed at his hotel. All in all, we were about 20 persons on the "eclipse hill" at 22 deg 01.98' South and 29 deg 55.94' East, very close to the centerline. On the hill, we were about 80 m above the surrounding area.

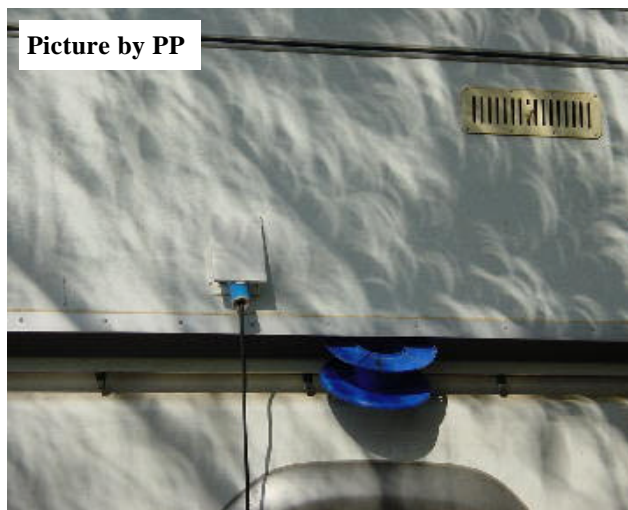
First contact was right on time, and we no longer had to

worry about clouds. The weather was perfect until fourth contact, quite like the year before in Zambia. A few seconds before totality, we could see how it became darker in the northwest. Matthew had his tent spread out on the ground for shadow bands, but we didn't see any. The corona was wonderful and we saw prominences at six and twelve o'clock. We could make out the northeastern edge of the shadow by the twilight visible there. According to an audio tape I had running, totality started at 8:18.32 and was 84 seconds long. The video, by the way, is completely blurry, I had probably made some mistake in setting it up.

Third contact came much too early (of course!), but we had a wonderful experience. Crossing the border into South Africa was again no problem, and I arrived back home in Germany yesterday evening.

A word about Zimbabwe: we felt safe there, however, the situation is deteriorating fast. People are begging for money and food, and as long as Mugabe is in power, it won't get much better. AIDS is a massive problem. I felt deeply ashamed when hoping for clear skies on eclipse day, whereas locals were praying for the much needed rain ...  
Matthias Graner

Picture by PP



### Eclipse success at Mt Hopeless Australia

From: Dale Ireland To: Solar Eclipse List  
<SOLARECLIPSES@AULA.COM> Date: Sun, 08 Dec

Hello Just got home from Australia where we observed the eclipse from east of Mt. Hopeless, 29 36m 22s S 139 47m 41s E Sun altitude about 2 degrees. Perfect weather detailed report to follow, I am working on our photos and tape Looks like we were about 70mi west of Michael Gill. We followed the Gas Pipeline road north from the Arkaroola area. Many adventures. Dale and Suzanne Ireland

## TSE2002

## Got up early to try to view webcasts

From: Robert B Slobins To: "'SOLARECLIPSES@AULA.COM'" <SOLARECLIPSES@aula.com> Date: Wed, 04 Dec 2002 16:07:39

Eric and all: CNN Headline News ran a story this morning c. 0830 EST on the eclipse. It showed a large partial eclipse behind fast moving clouds for South Africa and totality from Ceduna.

The weather was indeed tricky and totally wierd. A cold front through northern South Africa this time of year ?!?!?! The weather in the Outback benign--the highest at 14:30 local time being 89 F (32 C) ?!?! Weather is definitely what you get.

Next year we cheat. 36,000 feet altitude sounds like a deal.

Glenn Schneider--Please call me immediately on arrival to the USA. --Robert B Slobins

From: Sheridan Williams

From reports in so far I have compiled the following statistics:

Total Solar Eclipse 2002 Dec 4 Locations and the weather at totality

Country Location	Weather
Angola	
Namibia Caprivi Strip	No report
Botswana Chobe	Clear
Zimbabwe	No report
South Africa Messina	Clear
South Africa Kruger	Cloudy
South Africa Shingwedzi	Cloudy
Mozambique Xai Xai	No report
Sea locations	No report
Australia Ceduna	Clear
Australia Maltee	Cloudy
Australia Lyndhurst	No report
Australia Lindon Station	Clear
Australia Narylco	No report

140°53'E, 29°07'S

Best wishes Sheridan

From: Jay.M.Pasachoff@williams.edu

Fortunately, all of Ceduna was successful. We will try to get up an image today at [users.bigpond.com.au/williamseclipse](http://users.bigpond.com.au/williamseclipse) Jay

From: Robert B Slobins

Sheridan: Plumtree and Lyndhurst were clear. The wire services have stories and pictures. The northern part of the track through Zimbabwe was also good; I could see that on satellite images.

Eclipse chasing as a desk job. What a concept! <suggest an emoticon> regards, Robert B Slobins

From: Craig Small

Glenn, Craig, Joel, Michael, etc. saw a beautiful eclipse in the outback. Heard from Craig this am. Craig't wife, Robyn

From: analog6@ozemail.com.au

Dear Folk Due to delays getting away from Canberra (we left at 1400 Tuesday 03/12) we made a mad dash for Lyndhurst (NOT the planned and researched site of choice!) and asrrived 20 mins prior to totality.

Absolutely clear skies and cool conditions. A fabulous totality. I have a (somewhat wobbly) video of totality taken by my partner with my Sony Mavica. I will add it to my website tonight (we only got home late yesterday and it's back to the grindstone today.

I took still pics with my Canon and 500 mm lens - will be posted sometime over the next week.

Aussie waether as I have seen reports -

Ceduna - clouds for preceding phases but clear for totality  
Stuart Highway (area between Glendambo and west of Pimba) totally clear  
Lyndhurst - clear  
Cameron's Corner - clear

so apart from Ceduna on teh coast, totally clear skies. It was a great eclipse but too bloody short! Odille Esmonde-Morgan



**Eclipse  
glases for  
the vil-  
lage (PP)**

## TSE2002

### Eclipse at Cameron Corner

From: Fraser Farrell To: SOLARECLIPSES@AULA.COM  
Date: Mon, 09 Dec 2002 01:01:45

To all, This report just in from one of my correspondents, who travelled to Cameron Corner in a small aircraft to see the eclipse.

> As it was mid morning when we landed we were able to claim the western end of the airstrip as our space, which included .../...

I guess we will have to wait for Glenn et al to return before we see the pictures of "sunset totality" ? cheers, Fraser Farrell

From: Fraser Farrell

Evan, Should have clarified that for our international readers. Cameron Corner is where the states of South Australia, Queensland and New South Wales meet at 27d00' S 141d00' E. Because each of the states has different timezones operating on Dec 31, Cameron Corner is mainly noted as a place to celebrate the New Year three times in one night.

Cameron Corner was about halfway between centreline and north limit; and was expecting about 10 seconds of totality at an altitude of 1.6 degrees above the true horizon. The eclipse path ended in southwestern Queensland somewhere among the sand dunes and flood channels on the Tickalara pastoral lease. Exact location uncertain by several kilometres because of atmospheric refraction. cheers,

### Moon Shadow Moves Over Africa

From: Evan Zucker To: SOLARECLIPSES@AULA.COM  
Date: Mon, 09 Dec 2002 05:29:54

A nice animation: <http://antwpr.gsfc.nasa.gov/apod/ap021209.html> -- EVAN

From: Dave Schmahl

Thanks for the link, Evan. That's really amazing!

From: Evan Zucker

I just realized, upon closer review, that this animation is from the 2001 eclipse. I had mistakenly thought it was the 2002 eclipse. Sorry I didn't make this clear in my original message. -- EVAN

### Cameron Corner Eclipse expedition success follow up

From: Joseph Cali To: SOLARECLIPSES@AULA.COM  
Date: Tue, 10 Dec 2002 01:36:40

Just to follow up on Mike's communique on the Cameron Corner Group. I've noticed several postings asking for news of our observations. Bengt Alfredsson and I are in the Barossa valley drinking a lot of wine and on our way to the Coonawarra. We won't be back in Canberra til Dec 16-17. There will be more detailed reports to come. Glenn Schneider, Joel Moskowitz and Mike Gill will be home in the next 24 hours. Jay Friedland and Craig Small should be home and jet lagged by now.

Photo's - Australian Geographic wants first publication rights on any good photo's from our expedition and a story so I'm afraid members from our group will have to choose whether to embargo their images for AG or give up the opportunity to publish in AG & put them on the web.

Site

The group was located on a sand dune a few hundred metres south of Lindon Homestead

The group comprised -

Eclipse chasers

Bengt Alfredsson Joe Cali Jay Friedland Michael Gill  
Joel Moskowitz Glenn Schneider Craig Small.

First timers included

Ken and Raelene Ogilvie, owners of Lindon Station, their sons Andrew and David and a number of their friends from the Corner country.

Our two pilots Don and Nigel with two "escape planes."

Col Rickard, Peter Dawson and David Bassett from Canberra Australia.

Tuesday was cloudy all day while the group completed site surveying. This task was behind schedule, the Britz 4wd campers both needed repairs on the first two days. The two camper's were quite a handful on rough roads and the group was constantly arriving late. We were all tired from jet lag heat exhaustion and driving fatigue. Glenn Jay Joel and Mike went up to Old Naryilco on Monday evening. On Tuesday morning, I spoke to the local school children in Tibooburra. We set off to survey sites further west Tuesday. The group settled on a sand dune near Lindon Homestead 18km SW Cameron's corner because we were not certain

(Continued on page 18)

## TSE2002

we would see the setting sun from a number of other sites we looked at due to uncertainty in the horizon altitude(it was very close to the calculated totality altitude and we decided not to risk it) . We met other observers who did see it from further west than our group. Bengt & I returned to Tiboburra for the night while the others stayed in the campervans at Lindon that night.

On Wednesday morning Bengt and I returned. We called in to Fort Grey and Cameron's corner on the way 11am-12pm. Both were busier than usual but not packed - six campers at Fort Grey and one plane and a few cars at the corner. No sign of the 150 people they were expecting though totality was 8 hours away. As I drove to Lindon homestead, I saw our planes descending in to final approach at Bollard's Lagoon 20km north of our prime site.

The rest of the day was spent assembling equipment. Many of us had multiple cameras, tracking mounts and the biggest convention of umbraphile interfaces ever assembled. I had an equatorial mount and two other tripods holding eight cameras.

The sun was 1.5 degrees altitude during the 27 seconds of totality. We saw no approaching shadow but during totality the moons narrow shadow materialised and raced across the sky faster than I could turn to follow it. The shadow was thin and parallel as seen looking to the west, the convergence of the shadow cancelling out the divergence due to perspective and strongly convergent to the east. Post totality the shadow was still visible for about 30 seconds (I didn't time it) and some thought they saw vertical accent. I didn't observe this. For those of us who have seen multiple eclipses, we all thought this was worth the sacrifice of five seconds of totality for a chance to look at "God's bowling alley". I would repeat the exercise in the future and would recommend it to anybody.

The first timers were understandably blown away by the whole event. Some didn't see the shadow as they were mesmerised by the corona and in a euphoric trance just after totality. Pity, for mine, this was the highlight of the experience. I enjoyed the shadow coming in before the Bolivia 94 eclipse and have been hanging out to see something similar since. this exceeded my expectations.

My friends who came from Canberra were out there for a 4wd tour and the eclipse was not a priority and they said before hand that they didn't care if they saw it or not. They all shook my hand with big beaming

smiles a few minutes after totality and thanked me for convincing them to come. A few of the locals and my friends from Canberra did not rule out chasing another eclipse - ah converts!

Cheers & Merry Christmas from a delighted Joe Cali & Bengt Alfredsson

From: Evan Zucker

Thanks for much for the first first-hand report from so far east in the eclipse path. I'm thrilled you had such good conditions. I guess the only view you didn't get a chance to experience was seeing the fully eclipsed sun partially below the horizon.

If you decide that you are unable to post any of your photos until after they're published in AG, I'm sure some of us would love to receive JPGs privately. -- EVAN

From: Dave Schmahl

Ditto!



**Coca Cola sells two bottles with free eclipse shades  
(picture by PP)**



## TSE2002

**The Advertiser front page story**

From: Dale Ireland To: SOLARECLIPSES@AULA.COM Date: Mon, 09 Dec 2002 06:40:54

We saw this deplorable pile of trash on our last day in Adelaide. It reminded me of something you would read in the Enquirer or World Weekly News about aliens. It was so riddled with exaggerations, scare tactics, and outright lies that I do not believe it was a mistake or a misinterpretation of Health department warnings. Front page articles are researched and reviewed, this was an obvious attempt to Create a story, to create controversy, to sell papers at the expense of the truth. I read that they printed a rebuttal by Jay a couple days later, was it a full front page rebuttal, I doubt it. Dale

From: Fraser Farrell

Dale, The Advertiser is now facing legal action because of this story; which needlessly terrified a large percentage of its readers. I didn't see any subsequent followups because I was already travelling by then.

Advertiser journalists are also having extraordinary difficulty in contacting me in any way. This difficulty will continue indefinitely, I tell them, unless an apology for the story is published. On the front page, using the same typefaces as the original story. I expect that my grandchildren (if any) will be old enough to vote before that happens.

And I have since learned that the Western Australian government's ban on eclipse shades (and associated \$100,000 fine) has now been extended to \_all\_ types of solar filters. I note that their "logic" could also be extended to ban seatbelts & airbags in cars, motorcycle helmets, childproof caps on medicines, speed limit signs.... The fools who instigated this ban should, in my opinion, be immediately and permanently barred from ANY position involving responsibility for public safety.

I should have gone to Ceduna. I might have bought a full aperture H-alpha filter off one of the Perth astronomers there for a bargain price, now that they are illegal in WA. cheers,

From: Fraser Farrell

Marc, Solar filters are illegal only in the state of Western Australia; and only after Saturday 30 November 2002. I won't mention the words that are being said by the Australian astronomers & eclipse enthusiasts about this stupid ban. This mailing list is read by children.... cheers,

**Photos**

From: Starfield Scientific To: SOLARECLIPSES@AULA.COM Date: Mon, 09 Dec 2002 12:28:21

Below is an email sent to me requesting photos of the eclipse. I didn't take anything spectacular myself, and thought you guys (& gals) may be able to help. Please email them directly at sherian@bigpond.net.au

We were fortunate enough to have a spectacular view of the solar eclipse at Glendambo. I was wondering if you would now the best contact for us to purchase photographs .

We wish to try to purchase a good quality photograph of totality as seen at Glendambo SA. or any other photographic sites..

Any ideas or contacts would be much appreciated. Regards Sheri Andrews Alice Springs NT

**Eclipse from Shingwedzi Camp (SAROS Group)**

From: Francisco A. Rodriguez Ramirez To: SOLARECLIPSES@AULA.COM Date: Mon, 09 Dec

Hi All, A lot of clouds from Shingwedzi Camp. When the Baily Beads appeared, in the second contact, the clouds covered the Sun. In the middle of the totality a small hole in clouds was opened and we could observe and to photograph about 3 seconds of totality. Few seconds after of the third contact the sun appeared again between the clouds. The next week we will put some photos in our web [www.saros.org](http://www.saros.org) Best regards Francisco A. Rodríguez [www.saros.org](http://www.saros.org) [www.astroeduca.com](http://www.astroeduca.com)



Send in by Daniel Fischer

## TSE2002

### Australia 2002 first photos

From: Stephen Russell To: SOLARECLIPSES@AULA.COM Date: Mon, 09 Dec 2002 10:33:54

Hi to everyone, Pleased to report a successful trip by members and friends of the Illawarra Astronomical Society. We observed from between Lake Everard and Lake Gairdner in South Australia. No cloud all day, reasonable temperatures with wind most of the day (which kept the temperature down and most of the flies away).

We photographed from behind a dune near the shore of Everard. Others in the group stayed on the top of the dunes to get a view of the whole horizon.

The small magnitude of the eclipse resulted in lots of prominences being visible all around the disk during totality. One of our observers described it as "the Sun was trying to break out the whole time". I have a very short duration exposure which shows this "ring" of prominences quite nicely.

The low altitude did lead to quite high levels of extinctions. I allowed for a factor of 4 drop in intensity, based on the reference recently posted here by Glenn Schneider (thanks, Glenn) which suggested a factor of 6 or 7, and observations we did the previous evening. Four turned out to be an underestimate -- my partial shots were underexposed (1/250, f/10, 400 ISO, 83 degree elevation). Other shots were fine due to sufficient bracketing. So it looks like Glenn's reference provides a useful guideline for people photographing from near the beginning or end of the path at future eclipses.

We also managed to get a clear view of the receding eclipse shadow cone. Even though we were very close to the centre-line, the cone was easily visible, which reinforced just how narrow the shadow was this time.

We'll post our photos on our web site asap.

Great eclipse, with all of our "newbies" being bitten by the bug. They're already talking about Turkey, China and Cairns. Cheers, Steve.

### Eclipse from Wirraminna

From: kmalicki@idirect.com To: SOLARECLIPSES@AULA.COM Date: Mon, 09 Dec 2002 11:55:23

Five of us, my wife and I and our 3 Australian relatives observed the eclipse on the Stuart. It was a fabulous clear sky but very windy and cool. We were tenting overnight right on the centreline between Pimba and Glendambo; our eclipse "camp" of 5 people had a huge Canadian flag that was visible from the Stuart Highway. The solar corona was a beautiful intricate shape with at least 5 large plumes. The prominences were not particularly "prominent" this time around. Right after 3rd contact, we turned around and watched the moon's shadow rush away towards Lyndhurst. What was especially striking about the shadow was its thin shape compared to the other 8 total eclipses we've seen, and the rapidity with which it rushed away. Now I'm waiting with breathlessness to see how my pictures turn out. After sunset, the zodiac light and Magellanic clouds from the dark outback were fantastic. A very big thank you to Fraser Farrell for his excellent description of the Stuart highway which helped us very much. I also enjoyed reading the article about Fraser in the "Advertiser" in the Dec. 4 paper. Chris Malicki

### Bad luck in Kruger NP

From: Stig Linander To: solareclipses@aula.com Date: Mon, 09 Dec 2002 23:13:02

Bad luck in Kruger NP, the Nwarihlangani public viewing site: [http://www.linander.dk/stig/se2002\\_e.htm](http://www.linander.dk/stig/se2002_e.htm) Best regards, Stig.

From: Govert Schilling

Stig: I was with a small group of Dutch lay persons on the center line along the R524, close to the small village of Mhinga, and not too far from the Punda Maria Gate of Kruger National Park. We have seen some of the partial phases through holes in the clouds, but totality was invisible. Under the fully overcast sky, darkness was fast and impressive, and towards the end of totality, we could see brilliant Venus through a hole in the clouds. Just minutes before 2nd contact, a slender crescent of the sun also was visible; unfortunately, this opening in the cloud deck appeared a bit too soon... Despite the clouds, the people in my group (who are still enjoying their holiday in South-Africa; I only accompanied the group for 2 days) were all very excited, and hope to go to Turkey in March 2006. --Govert



## TSE2002

### The 4 December 2002 eclipse from Botswana - shadow bands

From: Barrie W. Jones To: SOLARECLIPSES  
<SOLARECLIPSES@AULA.COM> Date: Tue, 10 Dec

Eight of us went to Botswana for the eclipse, where we bush-camped at 19 deg 00.077 min south, 25 deg 34.769 min east, near the centre line. This is at the north-east extremity of the Kalahari region. There was a tiny amount of thin cirrus that was well away from the Sun, so we saw the whole eclipse under very clear skies.

The corona surrounded the Sun fairly uniformly, in the manner typical near to solar maximum activity. It looked very impressive in 10 by 42 binoculars. There were many small prominences but no large ones - the same was true the day before, when we observed the Sun with a telescope fitted with a narrow band (H-alpha) filter.

I set up a 1000 mm by 800 mm screen, facing the Sun, to record shadow bands with a state-of-the-art video camera brought by Mike Redfern of the University of Galway. We saw shadow bands by eye and on the replay. With an exposure time of 1/1000 sec motion blur is slight. However, the bands are of very low contrast, and rather disorderly, due to local atmospheric conditions. The direction of motion is not very clear, probably because of low wind speeds in the lower troposphere. The video frames will now be subject to analysis, to compare the characteristics of the pattern with the theory (interference patterns resulting from atmospheric turbulence illuminated by the solar crescent source).

No strange winds were noticed around totality. The temperature was depressed by about 5 celsius near totality, and did not recover until a couple of hours after fourth contact.

We were alone for the eclipse - a contrast to earlier eclipses when there have been others within earshot, sometimes many others. I rather enjoyed the isolation, though others might not have. Perhaps it's worth experiencing once, in just the same way that it's worth experiencing just one cloudy eclipse (mine was in Cornwall in 1999). Barrie W Jones The Open University UK

From: K. Wiersema

Hello everyone We also observed the eclipse in Botswana, near Kachikau. We had good conditions, nice clear sky. The sky did not get as dark as last year, but spotting Venus was easy, even during the partial fase. The diamond rings were beautiful, and the chromosphere was visible for a fraction of a second, very beautiful purple colour. Mercury and a few bright stars were visible. The corona was nice, but it showed

less structure than last year. Totality lasted for just 70 seconds, but it was a great 70 seconds. Animals reacted to the eclipse, we saw birds flying to their nests.

During the eclipse, my photcamera broke down, probably because of the heat and the dust. I took apprx 30 images, but I expect only 4 or 5 good ones. This was our third TSE, which brings our total time spent in the lunar shadow at 7 minutes 3 seconds. Klaas Wiersema University of Amsterdam

### Success for [www.eclipsesafaris.com](http://www.eclipsesafaris.com)

From: Kidinvs@aol.com To: SOLARECLIPSES@AULA.COM Date: Tue, 10 Dec 2002 00:19:12

I just arrived home from a week of safaris and a wonderful, but short, solar eclipse. I will report at length in a day or two, but I did just want to report that my group, all 22 of us, as well as about 10 others that we brought from the Sondelani Lodge saw a great eclipse with totally clear, blue skies. Our location was in Zimbabwe, on the "Bulawayo Road", and we viewed from this road on the 307km marker, located 10 km up the road from Beitbridge, directly on the center line. It was wonderful. Rick Brown

From: KidinVS@aol.com

I also wanted to report that we had an amazing display of shadow bands before and after totality, beginning slightly earlier than I recall usually seeing them...perhaps 60 seconds before 2nd contact. Everyone in the group witnessed them... many for the first time. It was truly wonderful. Rick Brown

From: Richard D. Lavoie

Just back from Zimbabwe, where I was with a group of Canadian amateur astronomers (7 in all). I'm more a reader of this list than a contributor, but I want to report on our experience in Zimbabwe. I scouted the spot on the "Bulawayo road" Rick Brown mentions in his email, but we finally decided to watch the eclipse from the banks of the Umzinguane river near the village of Malala, about 2-3 km from Rick Brown's spot and a few hundred meters from the center line. We distributed eclipse shades to the villagers and someone who spoke both English and Venda (the local language) translated my instructions. They thus safely observed all phases of the eclipse, including totality with naked eye. You should have heard their reaction! It was a wonderful experience, sharing an eclipse with such a group of cheerful "eclipse virgins"!

Unfortunately, one of the locals probably stepped on a ca-

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ble just before totality, so my 16mm camera (on an equatorial mount) could not record the 2nd and 3rd contacts. I usually shoot totality on film. Some of my shots of the 1998 and 2001 eclipses have been used in documentary movies, including 2 films produced by the National Film Board of Canada.

Full report (with exact coordinates) to come soon. Richard D. Lavoie  
Montreal, Canada

From: Kidinvs@aol.com

Hi..... if you saw us, we were on the Bulawayo Road, parked and set up on the North side of the road in front of a gigantic Baobab tree. During the few days preceding the eclipse, I had tossed about 1000 pairs of eclipse shades out the window of our car as we drove through towns, and handed them out from our site in the hours before totality.... did anyone mention this to you??? I am just curious, as I think I was the biggest source of free glasses in the country!!! (all courtesy of Mark Margolis at Rainbow Symphony) Rick Brown

From: Richard D. Lavoie

No, I didn't see you, as I scouted the place on Tuesday. But I think I know where you were, as the road crossed the center line only once. The shades we gave away were surplus shades from the Dec. 25th 2000 partial eclipse, donated by the Montreal Planetarium. We didn't have as many as you, but we did our best to explain how to use them. They were also quite useful as "gifts" (...) in order to facilitate going through road blocks. I didn't hear of your shades, because right after the eclipse, we left for Bulawayo and Matopos National Park. It was my second visit to Zimbabwe, and I do agree with Matthias Graner: Zimbabweans are great people, and I hope the best for them.  
Richard D. Lavoie

### Videoclips and images of eclipse

From: klipsi@bluewin.ch To: SOLARECLIPSES@AULA.COM  
Date: Sat, 07 Dec 2002 10:22:37

dear friends, I just uploaded a few video clips, in real video format, from the 3 cams I had during the eclipse. in 56k and 256k quality. go <http://eclipse.span.ch/eclipse.htm> and click on the date 7 (dec. 7)

images are posted on dec. 4. a bit too much wind, but still a great eclipse. best regards from Adelaide, Klipsi

From: KCStarguy@aol.com

Klipsi cam 1 shows the shadow nicely also enveloping the sun before 2nd contact and then arranging itself around the sun. The video of the wide angle shows the cone shaped shadow around the sun. Very nice. Cam 2 the shadow seems even more evident in this video. Showing you in the same scene to the right is interesting and gives depth to the video. I can see you celebrating wildly. Cam 3 shows the inner and out corona and I spied some prominences as you dialed in and out. Very nice. The corona seemed spread equally around the sun.

With real player they came out well. Wonder how well they might have come out with the use of quicktime format? Dr.Eric Flescher

From: klipsi@bluewin.ch

dear friends, back from Australia, back in Swaziland, err.. Switzerland. :-)) back to freezing cold Europe (yesterday -8°C in Amsterdam, near-zero in Geneva)

here is a resume of my pix and videos : images, <http://eclipse.span.ch/041202.htm> including sunset.

realmedia videos for 56 and 256k speed connections. <http://eclipse.span.ch/071202.htm> note: watch the 256k speed in double size or even fullscreen mode, quite nice.

I will also upload video clips for Mac / quicktime users, in MPEG format. see them linked at <http://eclipse.span.ch/101202.htm> note: the small files are already loaded, but I will upload the larger files only in a few days, from home, where I got faster adsl connection. thanks for your patience.

I will bring slides to process today, hope to get them back by friday. alright then...

next eclipse May 15/16, total lunar eclipse. next solar eclipse May 31, annular, I will be in Scotland. next total solar eclipse, november 23/24, Antarctica. Go hug a penguin ! best regards, Klipsi

wide angle view of eclipse, shadow



Picture by Klipsi

## TSE2002

### Succesfull eclipse at Koolymilka

From: LN To: SOLARECLIPSES@AULA.COM ate: Wed, 11 Dec 2002 08:12:33

We have seen a succesfull eclipse at Koolymilka, South Australia. The video came out nice so another eclipse movie is in the making. A more detailed report will follow. Ellen Bruijns

### Photos from Messina, South Africa, from Jon Kern

From: Jay.M.Pasachoff@williams.edu To: solareclipses@aula.com Date: Wed, 11 Dec 2002 16:29:52

Jonathan Kern asked me to forward this information: Here is a link to a webpage summarizing our experiences in South Africa at last week's solar eclipse. On it you will also find preliminary images obtained with the Newkirk camera.

<http://www.ligo-la.caltech.edu/~jkern/Eclipse02/> Jonathan Kern California Institute of Technology LIGO Livingston Observatory 19100 LIGO Lane, Box 940 Livingston, La 70754 Office: 1.225-686.3115 Facsimile: 1.225.686-7189

From: KCStarguy@aol.com

Great pics and nice account. Also another brilliant composite pic of 2002 by Wendy Carlos ( I wish I could find the details to do such a composite- I wonder what the opacity of each layer is? I know the rudimentary procedures) On the satellite photo you can see the cloud stream into Kruger (?) with North and South CLEAR as it seems.

Not sure why some other stuck it out in Kruger when they knew it was cloudy (Jen and Vic). Dr.Eric Flescher

From: Dale Ireland

Eric yes, nice composite. Too bad they are constantly so secretive about the real details of their digital Photoshop techniques. Many people have asked the same questions as you but they will not reveal anything. Dale

From: Robert B Slobins

Go to [www.adobe.com](http://www.adobe.com). There is a paper describing how to get the most out of total solar eclipse images on the site. --rbs



**Picture by Jean Deleu,  
Messina**

## TSE2002

### Zimbabwe Eclipse was great!

From: Bill Kramer To: Solar Eclipse Group <SOLARECLIPSES@AULA.COM> Date: Wed, 11 Dec 2002 21:52:03

A perfect 10.

We had clear sky from 1st contact until 4th contact with just a few wisps of clouds here and there. Our location in Zimbabwe, along the Bietbridge - Bulawayo road was at 22 S 05.9', 29 E 58.6' according to my GPS - near a large Baobab tree.

We could not have asked for better weather. In the days that followed we experienced increasing cloudiness and rain, but the days prior to the eclipse were beautiful and the nights full of stars as we stayed at a lodge far from any city lights.

During the eclipse we tested the EclipseTimer software and found it to be terrific! With speakers attached to a lap top computer (thanks Gordon!) the timer called out the essential information as the eclipse took place and it was very helpful in keeping track of the events as things unfolded. I strongly recommend using this software for future eclipse chasing!

The shadow bands across the sandy soil were quite clear and lasted several minutes before and after totality while the shadows of the acacia bushes and baobab cast excellent crescents across the ground. They were very easy to see and everyone in our group saw them. This is the first time I can remember that ever happening in the ten eclipses I've attended. There was none of this "See the shadow bands?" with the reply "No, where are they?"!

The corona was quite irregular with several streamers (not as big as previous years). I did not have time for detailed measurements as I was busy with the camera. My pictures were developed today and they are great, hope to scan them soon for posting.

There were several very nice prominences visible through the eyepiece of a telescope including a large hedge row near third contact and lots of smaller flares surrounding the lunar disk.

In the next few days I will begin posting pictures of the eclipse at eclipse-chasers.com (all contributions are welcome!).

We had a great time in Zimbabwe and are very happy to hear that so many SEML members did indeed see this beautiful eclipse. -Bill and Denise Kramer

### Eclipse at sunset

From: Evan Zucker To: SOLARECLIPSES@AULA.COM Date: Sat, 07 Dec 2002 21:32:06

I have yet to hear any reports of anybody viewing the eclipse right at sunset. Did anybody try to get to that portion of the totality path? I get the feeling it was pretty inaccessible. Evan H. Zucker San Diego, California

From: Dave Schmahl

Did anyone get pictures of the partially eclipsed sun setting over the ocean off the coast of Ceduna? Dave Schmahl Vista, CA

From: Jay.M.Pasachoff@williams.edu

It was cloudy at sunset. Jay

From: Fraser Farrell

I have pictures of the partially eclipsed sun setting over the desert sands east of Lake Torrens.

Picture by Klipsi



## TSE2002

A totally clear sky where I was, except for windblown dust. This, together with the low altitude of totality, produced colour effects unlike any of my previous three TSEs. Quite surreal... cheers, Fraser Farrell

From: Dave Schmahl

Fraser, Will you be making your pictures available online? I'd love to see them! Dave Schmahl Vista, CA

From: Dave Schmahl

That's a real shame. An eclipsed sun being distorted on the horizon would have been very spectacular to see.

From: Evan Zucker

But that was observed further east along the path, just not over the water in Ceduna. Klipsi photographed the partial eclipse setting and has some photos at <http://eclipse.span.ch/041202.htm>.

I have not yet gotten any responses to my question as to whether anybody viewed totality at sunset. Hopefully we'll get some word as people return from the Outback. -- EVAN

From: Robert B Slobins

Dave: Maybe not so spectacular. The atmosphere would have attenuated much of the corona; you would see just the chromosphere and inner corona provided the horizon were absolutely clear. Any clouds or haze would cause failure.

To illustrate: On 10 June, I drove 90 miles to get clear of thunderheads to shoot the partial eclipse at sunset. When the sun got into the tops of the thunderheads five or so degrees above the horizon, I removed the solar filter, stopped down to f/64 and bracketed my exposures on Velvia film between 1/2000 and 1/1000 seconds. 1/1500 was perfect; I even recorded sun-spots between atmospheric waves.

The lesson: Any moisture and pollution near the horizon and you may as well forget it. I had my reservations about being too deep in the Outback. I am glad that those out there got what they got. cheers/Robert B Slobins

From: Dave Schmahl

Robert, Many times I have photographed the Sun setting over the Pacific Ocean from here in Vista, CA. I have really enjoyed the various ways that the atmosphere distorts the Sun as it disappears below the horizon. I have seen the Sun turn green along its upper edges as the atmosphere breaks it up. Air pollution from Los Angeles is often blown out to sea and interferes with our sunsets. A layer of clouds on the horizon is also a common thing here. On those rare days when all is clear, then I've been able to see those spectacular distortions and green colors.

I had made plans to travel to Ceduna, but unfortunately those plans had to be canceled at the last minute. As well as totality, one of the things I was hoping to photograph was a partially eclipsed sun setting over the ocean. If the conditions were right, (and that's a big "If") I had hoped to see the same sort of distortions as I have seen many times from home. A photograph of a squashed and distorted partially eclipsed Sun turning green at the edges would have been spectacular. Maybe next time.

In P.V. on June 10, I had thought of driving North to get out from under Boris, but instead decided to stay in town. I was lucky to have seen as much as I did [www.schmahlconsulting.com](http://www.schmahlconsulting.com) Do you have any photographs of the June 10 eclipse available online? Dave.

From: Mike Simmons

Was anyone completely successful observing the sunrise total solar eclipse of 30 June 1992 on the coast of Uruguay? Patrick's description at [http://solareclipsewebpages.users.btopenworld.com/SECalendar\\_files/19920630.html](http://solareclipsewebpages.users.btopenworld.com/SECalendar_files/19920630.html) indicates partial

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success and a wonderful experience but the sky was not clear enough on the horizon to view the phenomena people are talking about here. Mike Simmons

From: Robert B Slobins

Dave, et al: My 10th June sunset eclipse images can be found in:

Astronomy, October 2002

Astronomy Now, September 2002

Tahdet ja Avaruus, 5/2002

Orion, October 2002

L'Astronomie, back cover, October 2002.

The correct technical information is as follows: 400/4 Tamron lens with 2X teleconverter, giving 800mm. Fuji Velvia (ISO 50) film (yes, I do slides) or NPS 160 Fujicolor f/64 with shutter speeds from 1/2000-1/1000 second in half steps; the Nikon F2 body can do that. No solar filter; the cumulonimbus anvil tops attenuated the light sufficiently. A lot of care--you need to be really careful about your eyes! I had to remove the sun filter as the sun totally disappeared as seen through the filter as time passed. I was in Indiana, not Illinois.

You can photograph naked-eye sunspots if the sun is very low to the horizon this way. MIND YOUR EYES!

As far as online images are concerned, I can put examples up on [www.spacew.com/gallery](http://www.spacew.com/gallery). Stay tuned.

Speaking of online galleries, I am surprised that [www.spaceweather.com](http://www.spaceweather.com) still has no coverage of the total eclipse save for the astronauts' view of the shadow. I would have figured that with an Internet connection, the digital images would have made it over there by now. cheers/Robert B Slobins

From: Dale Ireland

Jay We had access to an Adelaide TV station from the Arkaroola complex 600km north of Adelaide (a 12 hr drive north of Adelaide and a six hour drive south of the actual eclipse site). We saw two eclipse reports upon our return to Arkaroola in which you were interviewed, congratulations. They described you as a member of a US\$100,000 expedition. We noticed that your prime research instrument appeared to be a Nikon F3 with a 135 lens. :) Seriously, Did your group have a specific research goal? Did you get some useful results? Anything we might be able to contribute from our tapes and photos much further east on the track? Dale and Suzanne Ireland



**Picture by Dale Ireland**

From: Dale Ireland

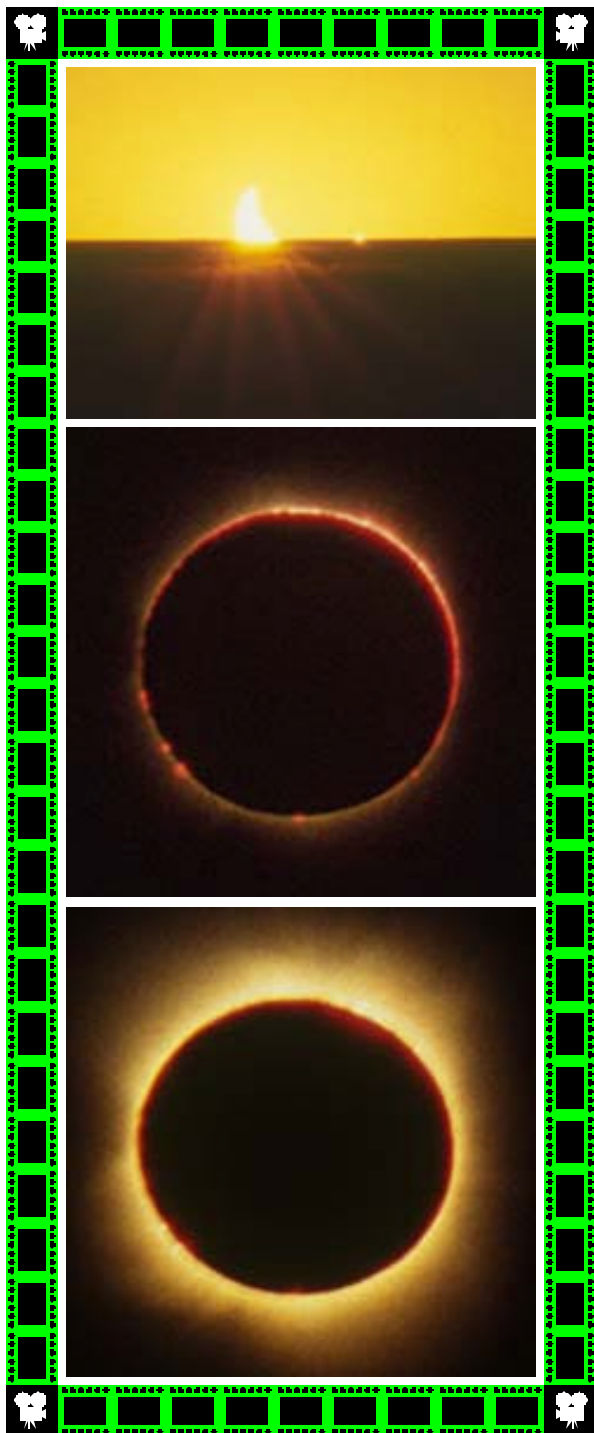
We were 180mi from the end of the path. It was very remote. Hundreds of miles of dirt road from nowhere. We were the guests of a rancher with 1.9 million acres of cattle ranch (for which he said he paid about \$500,000 US) which we could not believe could really support cattle. Some areas had sand dunes, most was sparsely covered with 3 inch high scrub and a few 2 foot high bushes every 50 meters or so. It looked a lot like the Sevaruyo. area we saw in Bolivia.

From: Philippe JACQUOT

Hi All, Just back in France, a few images of the eclipse taken in the Australian Outback at the end of the path. Location spot near Old Naryilco in Queensland. More later... <http://www.astrosurf.com/studiosaros/index.html> Philippe JACQUOT  
Annecy-France



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All pictures this page by Dale Ireland

(from page 26)

From: Dave Schmahl

Philippe, Your image of 3rd contact over the trees is just superb! Dave Schmahl Vista, CA

From: Fraser Farrell

Philippe JACQUOT wrote: taken in the Australian Outback at the end of the path. Location spot near Old Naryilco in Queensland.

Not your typical picture of "mulga trees at sunset"....but it shows that low altitude doesn't prevent a nice-looking totality! cheers, Fraser Farrell

From: Dale Ireland

Philippe Wonderful shot. Just what I was trying to record but I didn't get it as well as you. I see some "oblateness" to the Sun and also it shows how the reddening of the atmosphere greatly subdued the appearance of the corona since the corona has a significant blue component which was blocked. A very good representation of the visual experience. Dale

From: Robert B Slobins

Philippe: Your image is "tree-mendous".

Dale, et al: Where is the blue part of the corona?

The K-corona, the high-temperature inner part, is an emission source where the main component is the green Fe line. Of course, that would be diminished by the atmosphere. There are red lines and blue lines, but none as strong as that green one.

The F-corona is a continuous spectrum of free electrons. The dust reflects sunlight. Have I missed something? --rbs

From: Jay.M.Pasachoff@williams.edu

Here is the description of the parts of the corona: The K-corona is continuous radiation from electrons reflecting (scattering) the spectrum of the underlying photosphere. It has the same color distribution as the photosphere (i.e., white light), though all absorption lines are blurred out by the Doppler effect caused by scattering off rapidly moving electrons. The inner corona, and the streamers, are K-corona. If they don't look "white" when near the limb, it is because the blue light is scattered out to make blue skies for people between us and the setting sun. The K-corona is

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highly polarized.

The F-corona is the solar photospheric spectrum reflected (scattered) off dust particles near the orbit of Mercury. It has all the absorption lines and is not polarized. When you go beyond one or two radii, you see mainly F-corona.

The emission lines, sometimes called the E-corona, are detectable at the limb but soon fade out with height and don't contribute much to the white-light corona.

I didn't see anything on these beautiful photos from Queensland that showed any special color effects. Jay Pasachoff

### Description of our site in Ceduna

From: Jay.M.Pasachoff@williams.edu To: SOLARECLIPSES@AULA.COM Date: Mon, 09 Dec 2002 02:49:22

Thanks for writing, Dale. Since you sent this message via the list, I'll respond that way, too.

I spent quite a lot of time on radio stations and TV trying to combat the absolutely horrible anti-eclipse "eye-safety" propaganda. At one point the Western Australia (not eclipse territory) ministry of Public Health banned the sale of eclipse glasses, threatening \$100,000 fines. The Saturday before the eclipse, the Standard, the newspaper from Adelaide, had a banner headline in 4" high letters saying "DON'T LOOK" on the front page.

Anyway, we had our usual three major experiments: one for coronal heating (14" Celestron on Losmandy mount with Princeton Instruments rapid-readout CCD); one for polarization (12" Meade LX200 with Roper Scientific CCD); and one to match the defunct C1 coronagraph on SOHO (special telescope we built with Apogee CCD). The experiments are described at our Web page in a press release at [www.williams.edu/astronomy/eclipse](http://www.williams.edu/astronomy/eclipse), under (of course) 2002. We had a team of 11 Williams College undergraduates, 1 alumnus who is now a grad student in astrophysics at SDSU, three Williams College faculty, another technical associate, a past WC faculty member, a staff person from University of Sydney, a staff person retired from Sacramento Peak Observatory, a team physician from Williamstown (who operated cameras) and two spouses. That totalled 22 people on site.

Various photos from our site are at [users.bigpond.com.au/williams.eclipse](http://users.bigpond.com.au/williams.eclipse) though we will be moving those images back to our site above within the week. We haven't yet put on the eclipse images; the site shows our group and its activities.

The \$100,000 in question--which I tried to get across--was in large part airfares paid to Qantas. \$100,000 Australian = \$55,000 American. I didn't count the equipment.

Our goal was to study coronal heating and polarization, and to link the SOHO EIT experiment on the solar disk with LASCO high in the corona. We don't have heating data; our polarization data are excellent and will probably be the subject of a student thesis in 2003-4; and a very preliminary version of the eclipse/SOHO image is on the NASA site at <http://www.gsfc.nasa.gov/topstory/2002/1204eclipse.html>. We have a lot more to do with those images. You are welcome to link those images to your own site.

We tried to keep the TV cameras out of our equipment compound. As far as peripheral things, we had lots of Nikons but no F3 and no 135-mm lens. We did have an F, an F2, an F4, and 2 F5's as well as an N90, a 6006, and several FM2's. The stuff with 1250, 1200, 600, and 500 mm lenses is on film and isn't developed. As for digital stuff, we have a great film on a Canon XL-1 (lent us by Canon) looking over the sea at Ceduna with a wide-angle lens, showing the Sun moving into the hole in the clouds. We'll have to put a version on the Web. The sky is a little faint but still visibly red on the horizon during totality; does anybody have experience in enhancing the contrast on DV files? We also have some smaller films taken on digital still cameras. We sent our other Canon XL-1 equipped for closeup and our Canon EOS-1 digital camera to Maltee, about 40 km inland, with three of our students and some of the staff, about two hours before totality in expectation of clear skies there, but they saw only partial phases and we did better in the end at Ceduna, where all our major equipment was.

Someone in Adelaide recorded various local TV reports, and I could make copies of that in NTSC for anybody who asks

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eventually after we make a transfer from PAL. Thanks for asking. Jay Pasachoff

From: Jay.M.Pasachoff@williams.edu

Our Australian Web site has just .com, not .com.au, so is users.bigpond.com/williamseclipse

but we have not yet had time to put up pictures of the eclipse itself. The site now just has images of our group at the site.

We'll be moving it next week to [www.williams.edu/astronomy/eclipse](http://www.williams.edu/astronomy/eclipse). Jay pasachoff

### Remarkable Eclipsing Coincidences!

From: klipsi@bluewin.ch To: SOLARECLIPSES@AULA.COM Date: Thu, 12 Dec 2002 02:09:01

Dear friends, what follows here is a true story, and I reprint it with the permission of the persons involved. A magic story, indeed.

Here is an e-mail I received from someone in Australia. I get a lot of people to follow my online travel stories, and quite a few people write to me, mostly to thank me for entertaining them. It is quite rewarding. This letter here is special.

Dear Olivier - Klipsi, I cannot resist sending you a quick note to tell you just how much I appreciated your website during the Solar Eclipse in South Australia. Your wonderful photography was only matched by your warm and witty words!

My husband and a good friend decided to do the sensible thing and travel from Melbourne to Glendambo to see the eclipse (leaving me with 5 small children, but - thank God - a sensible cat). Tormented with jealousy, I scoured the internet to have a vicarious experience, and stumbled happily upon your site. As the days progressed towards the 4th Dec, I shared your progress (via some spectacular storms) towards the eclipse. I felt quite smug that I was having my own little excursion, through your eyes!

So today I called my, now returned, husband to the computer to show him the site that kept me sane in his absence. "Come and meet Klipsi", quoth I. Well bugger me - there is a picture of my husband on your website (he is Alasdair, the slightly taller and narrower of the gentlemen in the white car and blue-silver tent).

This caused me great happiness in two principle domains. One, my hero Klipsi was at the same place as my gorgeous husband, and two, there was photographic evidence that Alasdair did go to South Australia and wasn't actually locked away in a brothel having a five day holiday away from his kids.

Anyway, by way of thanks - here is a photo of YOU, taking a photo of Tim and Jean. Thanks again for your website, it really made the vicarious experience great! I look forward to Antartica (not in body, but definitely in spirit). Cheers and G'day, Felicity

the pictures mentioned are: from my site: <http://eclipse.span.ch/041202g.jpg>

the pix she sent me: <http://eclipse.span.ch/klipsitimjean041202.jpg>

Well, what can I say ? Getting ready to report live from Antarctica.

Yeah, I get a lot of "fan-mail" ;-). So far, it was in November 1998 , when I was reporting about the leonids from Thailand that I got the most messages from websurfers who followed my story. I had them published at <http://eclipse.span.ch/leoletters.htm> .

Hm... isn't the internet a marvellous thing ? Klipsi

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### Bushfire smoke as eclipse filter

From: klipsi@bluewin.ch To: SOLARECLIPSES@AULA.COM at: Thu, 12 Dec 2002 04:41:09

see the partial sunset eclipse near Sydney, filtered through haze / smoke from bushfire, at

[http://www.australiasevereweather.com/storm\\_news/2002/docs/200212-01.htm](http://www.australiasevereweather.com/storm_news/2002/docs/200212-01.htm) Klipsi

### TSE 2002 from Lindon Station SA

From: Glenn Schneider To: SOLARECLIPSES@AULA.COM Date: Thu, 12 Dec 2002 05:33:10

Total Solar Eclipse 2002 is now history and indelibly etched in my brain. It was a spectacular sight, splendidly augmented by the camaraderie of good friends, new and old. Truly an adventure never to be forgotten or diminished by time. Thanks to one and all who participated and contributed to our dreamtime walkabout in our Britz campervans.

I must now return to reality, though, as I have unshakable looming deadlines which are pulling at me with no remorse. After one more email posting, I will, with great regret unplug from my personal and eclipse emails for a time to catch up and do my penance for dashing off for a jolt of umbra. So, replies to this, or follow-on emails may go unanswered for a week or so - and for that I apologize. I simply cannot let these work related commitments slip, please understand. Before doing so, let me say...

Jet-lagged and weary I am now back home from a most enjoyable and successful observation of my twenty-third, and second shortest, total solar eclipse. Being very short on time, and noting that Joe Cali has already posted an excellent summary recounting of our venture, I simply wanted to second his comments in that seeing a sunset\* eclipse was definitely worth the gamble. The "\*" is on "sunset" as we did back up a bit toward the western extremity of the path. Just before leaving the U.S. we were advised by the national park ranger at Ft. Grey that the airstrip was not usable - and as close proximity to "escape planes" was a central part of our plans (which we fortunately did not have to invoke) we observed instead at the Lindon Station (Fortville Bore) homestead (a 1,700 square mile property!) [Lat -29d07'53", Lon -140d 53' 50"]. We all owe our most grateful thanks to Raylene and Ken Ogilvie for their warm and gracious hospitality and use of their facilities and airstrip. The site was exquisite giving a true astronomical - actually depressed - horizon view.

Prior to arriving at Lindon we did scout out sites further west, but the occurrence of scrub and vegetation on the western horizon left us a bit skittish about having the Sun possibly obscured at altitudes < 1 degree. Indeed, post-eclipse we ran into some French eclipse-chasers who had set up at Naryilco, at what looked like (or very close) to one of the sites we had looked at earlier who had some stunning low-altitude photographs with the lower portion of the corona obscured by distant flora!

But, more conservatively we compromised and were rewarded with 26.6s of totality 1.5 degrees above the horizon at mid-eclipse with far less extinction than we had feared thanks to very little airborne dust - though the corona had an unmistakable reddish tinge and the lunar disk was geometrically squashed along the vertical. Joe' Cali's description of the onset of umbral visibility was right on the mark - and it was stunning - but the recession of the shadow was even more remarkable. I am sorry Joe did not see that, though I hope it will be captured on the wide-field cameras at our site operated by Joe, Michael Gill and/or Jay Freidland. We did see the shadow ascend upward. After third contact it appeared as a distinct near-circular, but somewhat oval very broad dark region centrally overhead. The horizon was dark with a brighter band higher up and the central darker shadow above it growing smaller with time. Visually it was not as I had expected and we must have been seeing the "bottom" of the umbra as it sliced nearly horizontally through the upper atmosphere above us as we looked upward. This truly was a "different kind" of an eclipse, at least from the purely visual and esthetic aspect. Given a significant chance of clear skies at low solar elevation (as in this eclipse) I would not hesitate to recommend doing this for those who sought smaller zenith distances (or longer totality)- even if just once - at a future eclipse.

Films are out being processed and transferred to photo CD. A detailed pictorial report will be posted on my web site soon after that.

2003: While in Melbourne I had a most positive and productive meetings and discussions with Phil Asker, and QANTAS captains

*(Continued on page 31)*